



UNITED STATES AIR FORCE
CENTER FOR STRATEGIC
DETERRENCE STUDIES

NEWS AND ANALYSIS

Issue 1496

Nov 22, 2021

Welcome to [USAF Center for Strategic Deterrence Studies](#) News and Analysis. As part of the CSDS mission to develop [U.S. Air Force](#), [Department of Defense](#), and other [government](#) leaders to advance the state of knowledge, policy, and practices within strategic defense issues involving nuclear, biological, and chemical weapons, we offer the government and civilian community a source of contemporary discussions.

Feature Report

["Rethinking Health Security after COVID-19"](#). Oxford Programme on International Peace and Security and Center for the Study of Weapons of Mass Destruction; November 2021.

"Despite their oft-cited leadership in pandemic preparedness and outsized roles in the governance of global health, the US and the UK have struggled to respond effectively to the spread of COVID-19. Consequently, this has prompted vital debate about the grave impact of emerging infectious diseases and the need to identify public health as a national and international security priority." [Read Report](#).

Nukes and Deterrence, Counter-WMD, and Arms Control in News and Research

NUCLEAR WEAPONS AND DETERRENCE

- [Defense Primer: Strategic Nuclear Forces](#) (Congressional Research Service)

Since the early 1960s the United States has maintained a "triad" of strategic nuclear delivery vehicles.

- [Nuclear Warhead Cores Production Brings Expansion, Jobs to Savannah River Site](#) (Augusta Chronicle)

"Two of the three major elements that go into a nuclear weapon, radioactive wise, are tritium, plutonium, uranium," Olson said. "Tritium and plutonium will be made at the Savannah River Site."

- [Under-Wraps B-21 Bomber is Seen Costing \\$203 Billion into 2050s](#) (Bloomberg)

Those costs are part of a huge "bow wave" of spending facing the U.S. military -- and American taxpayers -- as the Pentagon seeks to upgrade the nation's land-sea-air triad of nuclear weapons.

- [Defense Primer: Command and Control of Nuclear Forces](#) (Congressional Research Service)

Within the system, radars, satellites, and processing systems provide "unambiguous, reliable, accurate, timely, survivable and enduring" warning of attacks on the U.S., allies, and overseas forces.

- [Northrop Grumman Touts GBSD Rocket Motor Milestone](#) (Homeland Preparedness News)

The firm secured the GBSD engineering and manufacturing development contract in September 2020, officials said, as part of an effort to modernize the country's intercontinental ballistic missile system.

COUNTER-WMD

- [US Army Deploys Iron Dome Missile Defense System to Guam](#) (AP via Stars and Stripes)
Army officials said Wednesday they expect to obtain data that will help it understand how effectively the Iron Dome Missile Defense System can be used in the U.S. territory.
- [How Gene Editing Could Be Used as a Weapon](#) (The Conversation via Phys.org)
Given these possibilities, it is not surprising that the director of the US National Intelligence, James Clapper, termed gene editing "weapons of mass destruction and proliferation" in 2018.
- [Soldiers Hone Combat Skills with 4th Infantry Division](#) (U.S. Army)
The "Gladiators" conducted seven mounted reconnaissance operations, four thorough decontamination missions, four operational decontamination missions and four CBRN site assessments.

US ARMS CONTROL

- [U.S. Pushes Arms-Control Talks as China's Nuclear Arsenal Grows](#) (Wall Street Journal)
Concerns that Beijing is developing hypersonic missiles and building nuclear silos have sparked alarm in Washington.
- [UN Atomic Watchdog: Iran Further Raising Nuclear Stockpile](#) (Associated Press)
The IAEA told member nations that Iran has an estimated stock of 17.7 kilograms (39 pounds) of uranium enriched to up to 60% fissile purity, an increase of almost 8 kilograms since August.
- [Setting the Tone for the 10th NPT Review Conference: A Working Lunch in New York](#) (Center for Nonproliferation Studies)
The luncheon discussion, facilitated by Center Director Professor William Potter, addressed several key issues that will be at the forefront of the Review Conference.

COMMENTARY

- [Upping Our Homeland Missile Defense Game](#) (Real Clear Defense)
"The DoD is well down the path to expanding the Ground-based Midcourse Defense system ... from 44 to 64 Ground-Based Interceptors (GBIs) in Alaska and California."
- [British Public Wants NATO to Renounce the First Use of Nuclear Weapons](#) (Bulletin of the Atomic Scientists)
"The impression one gains from talking to people who are familiar with governmental thinking is that the British government sees retention of first use as a handy antidote."
- [What Would Nuclear Peace Look Like?](#) (Arms Control Wonk)
"The geometry of nuclear competition is way more complex than ever before. There are four pairings of nuclear-armed rivals, and there will be more if Iran acquires the means to make nuclear weapons."

